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**In the Claims:**

Please cancel claims 1-20 without prejudice or disclaimer of the subject matter contained therein and enter new claims 21-42 as follows:

21. An isolated polynucleotide segment comprising a nucleic acid sequence or the full complement of the entire length of the nucleic acid sequence, wherein the nucleic acid sequence is selected from the group consisting of:

- (a) a polynucleotide comprising SEQ ID NO:1; and,
- (b) a nucleotide sequence identical to the polynucleotide of (a) except that, over the entire length corresponding to the polynucleotide of (a), up to **thirty** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a);

wherein the nucleic acid sequence is not genomic DNA and wherein the nucleic acid sequence detects *Staphylococcus aureus* by hybridization.

22. A vector comprising the isolated polynucleotide of claim 21.

23. An isolated host cell comprising the vector of claim 22.

24. The isolated polynucleotide segment of claim 21, wherein the nucleic acid sequence comprises a nucleotide sequence identical to the polynucleotide of (a) except that, over the entire length corresponding to the polynucleotide of (a), up to **ten** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a).

25. A vector comprising the isolated polynucleotide segment of claim 24.

26. An isolated host cell comprising the vector of claim 25.

27. The isolated polynucleotide segment of claim 21, wherein the nucleic acid sequence comprises a nucleotide sequence identical to the polynucleotide of (a) except that, over

the entire length corresponding to the polynucleotide of (a), up to **five** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a).

28. A vector comprising the isolated polynucleotide segment of claim 27.

29. An isolated host cell comprising the vector of claim 28.

A' 30. The isolated polynucleotide segment of claim 21, wherein the nucleic acid sequence comprises a nucleotide sequence identical to the polynucleotide of (a) except that, over the entire length corresponding to the polynucleotide of (a), up to **three** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a).

31. A vector comprising the isolated polynucleotide segment of claim 30.

32. An isolated host cell comprising the vector of claim 31.

33. The isolated polynucleotide segment of claim 21, wherein the nucleic acid sequence comprises a nucleotide sequence identical to the polynucleotide of (a) except that, over the entire length corresponding to the polynucleotide of (a), up to **two** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a).

34. A vector comprising the isolated polynucleotide segment of claim 33.

35. An isolated host cell comprising the vector of claim 34.

36. The isolated polynucleotide segment of claim 21, wherein the nucleic acid sequence comprises a nucleotide sequence identical to the polynucleotide of (a) except that, over the entire length corresponding to the polynucleotide of (a), up to **one** nucleotides are substituted, deleted or inserted for every 100 nucleotides of the polynucleotide of (a).

37. A vector comprising the isolated polynucleotide segment of claim 36.

38. An isolated host cell comprising the vector of claim 37.

39. An isolated polynucleotide segment, comprising a nucleic acid sequence or the full complement of the entire length of the nucleic acid sequence, wherein the nucleic acid sequence hybridizes to the full complement of SEQ ID NO:1, wherein the hybridization conditions include incubation at 42°C in a solution comprising: 50% formamide, 5x SSC (150mM NaCl, 15mM trisodium citrate), 50 mM sodium phosphate (pH7.6), 5x Denhardt's solution, 10% dextran sulfate, and 20 micrograms/ml denatured, sheared salmon sperm DNA, followed by washing in 0.1x SSC at 65°C; wherein the nucleic acid sequence comprises a nucleotide sequence identical to SEQ ID NO:1 except that, over the entire length corresponding to SEQ ID NO:1, up to **five** nucleotides are substituted, deleted or inserted for every 100 nucleotides of SEQ ID NO:1; wherein the nucleic acid sequence is not genomic DNA and wherein the nucleic acid sequence detects *Staphylococcus aureus* by hybridization.

40. A vector comprising the isolated polynucleotide segment of claim 39.

41. An isolated host cell comprising the vector of claim 40.

42. The isolated polynucleotide segment of claim 39, wherein the nucleic acid sequence comprises a nucleotide sequence identical to SEQ ID NO:1 except that, over the entire length corresponding to SEQ ID NO:1, up to **three** nucleotides are substituted, deleted or inserted for every 100 nucleotides of SEQ ID NO:1.